

AMENDMENTS TO THE CLAIMS

Please amend the claims as follows:

1-18. (Cancelled)

19. (Currently Amended) An optical transmission device configured to
perform two-way communication with other optical transmission devices which are
spatially separated from the optical transmission device, the optical transmission
device comprising:

a light-emitting element for converting an electronic signal to an optical signal;

a first light-receiving photodetector for signal detection for converting a received optical signal to an electronic signal;

at least two other light-receiving photodetectors for position detection, each photodetector including a plurality of light receiving elements separated by a separating band having a width L, for detecting a receiving position of a luminous flux emitted from an other light-emitting element from one of the other optical transmission devices
spatially separated from the optical transmission device an opposed partner device, wherein each of the other light-receiving photodetectors are separate and independent from the first light-receiving photodetector; and

a mirror adjustable so as to align an optical axis of the luminous fluxes emitted from the other light-emitting element from the opposed partner device with an optical axis of the luminous fluxes emitted from said light-emitting element of said optical transmission device in accordance with a detected position by the at least two other light-receiving photodetectors for position detection,

wherein said at least two other light-receiving photodetectors for position detection are arranged so that receiving positions of said at least two light-receiving photodetectors are shifted a distance D which is greater than the width L of the separating band with respect to a plane perpendicular to the optical axis of the optical transmission device.

20. (Previously Presented) The optical transmission device according to Claim 19, wherein said other light-receiving photodetectors includes four light receiving elements separated by the separating band.

21. (Previously Presented) The optical transmission device according to Claim 19, wherein a diameter of a light receiving spot formed on said at least two other light-receiving photodetectors for position detection is smaller than the width L of the separating band.

22 - 23. (Cancelled)

24. (Previously Presented) The optical transmission device according to Claim 19, wherein the relationship $1.2 \times L < D < 10 \times L$ is satisfied.

25. (New) The optical transmission device according to Claim 19, further comprising:

a signal processing unit in communication with the at least two other light-receiving photodetectors for position detection; and

a mirror drive control unit in communication with the signal processing unit, the mirror drive control unit configured to generate a correction signal,
wherein a difference in intensity of the light beam detected by the at least two other light-receiving photodetectors for position detection is transmitted to the mirror drive control unit as misalignment information.

26. (New) The optical transmission device according to Claim 25, wherein, in a normal mode in which a received light beam from one of the other optical transmission devices spatially separated from the optical transmission device can be detected without loosing sight, misalignment information supplied from a first one of the at least two other light-receiving photodetectors for position detection is processed at the signal processing unit.

27. (New) The optical transmission device according to Claim 25, wherein, in a mode in which a received light beam from one of the other optical transmission devices spatially separated from the optical transmission device falls within the separation band of a first one of the at least two other light-receiving photodetectors for position detection such that the received light cannot be detected, a signal from a second one of the at least two other light-receiving photodetectors for position detection is

verified to recognize whether a light receiving spot is located at the center of the first one of the at least two other light-receiving photodetectors.

28. (New) The optical transmission device according to Claim 27, wherein intersecting points of separation zones of the first and second ones of the at least two other light-receiving photodetectors for position detection are shifted by a predetermined amount D from the optical axis in both vertical and horizontal directions.

29. (New) The optical transmission device according to Claim 27, wherein intersecting points of separation zones of the first and second ones of the at least two other light-receiving photodetectors for position detection are shifted by a predetermined amount D from the optical axis in both vertical and horizontal directions.

30. (New) An optical transmission device configured to perform two-way communication with other optical transmission devices which are spatially separated from the optical transmission device, the optical transmission device comprising:

 a light-emitting element for converting an electronic signal to an first luminous flux;

 a first light-receiving photodetector for signal detection by receiving second luminous flux from one of the other optical transmission devices spatially separated from the optical transmission device;

 at least two other light-receiving photodetectors for position detection, each photodetector including a plurality of light receiving elements separated by a separating

band having a width L , for detecting a receiving position of the second luminous flux,

wherein the first light-receiving photodetector and the other light-receiving

photodetectors are separate and independent each other; and

 a mirror adjustable so as to align an optical axis of the first luminous flux
with an optical axis of the second luminous flux in accordance with a detected position
by the at least two other light-receiving photodetectors,

 wherein said at least two other light-receiving photodetectors are arranged
so that receiving positions of said at least two light-receiving photodetectors are shifted a
distance D which is greater than the width L of the separating band with respect to a
plane perpendicular to the optical axis of the first or second luminous flux.